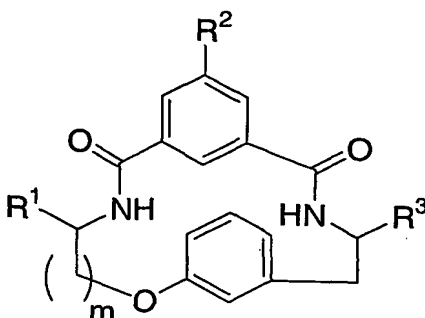


WHAT IS CLAIMED IS:

1. A compound of the formula I:



I

wherein:

R¹ is selected from the group consisting of:

- (1) hydrogen,
- (2) -C₁₋₆alkyl, -C₂₋₆alkenyl, -C₂₋₆alkynyl, or -C₃₋₈cycloalkyl which is unsubstituted or substituted with 1-7 substituents where the substituents are independently selected from:
 - (a) halo,
 - (b) hydroxy,
 - (c) -O-C₁₋₆alkyl,
 - (d) -C₃₋₆cycloalkyl,
 - (e) phenyl or biphenyl, which is unsubstituted or substituted with 1-5 substituents where the substituents are independently selected from:
 - (i) -C₁₋₆alkyl,
 - (ii) -C₃₋₆cycloalkyl,
 - (iii) -O-C₁₋₆alkyl,
 - (iv) halo,
 - (v) hydroxy,
 - (vi) -CF₃,
 - (vii) -OCF₃,
 - (viii) -NR⁹R¹⁰, and
 - (ix) -CN,

- (f) $-\text{CO}_2\text{R}^9$, wherein R^9 is independently selected from:
- (i) hydrogen,
 - (ii) $-\text{C}_{1-6}\text{alkyl}$, which is unsubstituted or substituted with 1-6 fluoro,
 - (iii) benzyl, and
 - (iv) phenyl,
- (g) $-\text{NR}^9\text{R}^{10}$, wherein R^{10} is independently selected from:
- (i) hydrogen,
 - (ii) $-\text{C}_{1-6}\text{alkyl}$, which is unsubstituted or substituted with 1-6 fluoro,
 - (iii) benzyl, and
 - (iv) phenyl,
- (h) $-\text{CONR}^9\text{R}^{10}$,
- (3) phenyl which is unsubstituted or substituted with 1-5 substituents where the substituents are independently selected from:
- (a) $-\text{C}_{1-6}\text{alkyl}$,
 - (b) $-\text{C}_{1-6}\text{alkyl-phenyl}$,
 - (c) $-\text{C}_{3-6}\text{cycloalkyl}$,
 - (d) $-\text{O}-\text{C}_{1-6}\text{alkyl}$,
 - (e) halo,
 - (f) hydroxy,
 - (g) $-\text{CF}_3$,
 - (h) $-\text{OCF}_3$,
 - (i) $-\text{NR}^9\text{R}^{10}$, and
 - (j) $-\text{CN}$;

25 R^2 is selected from the group consisting of:

- (1) hydrogen,
- (2) $\text{R}^4-\text{S}(\text{O})_p-$,

wherein R^4 is independently selected from the group consisting of:

- (a) $-\text{C}_{1-6}\text{alkyl}$, which is unsubstituted or substituted with 1-6 fluoro,
- (b) phenyl, and
- (c) benzyl,

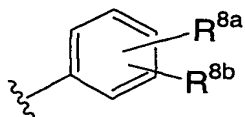
and wherein p is independently 0, 1, or 2,

- (3) $\text{R}^4-\text{S}(\text{O})_p\text{N}(\text{R}^5)-$,

wherein R^5 is independently selected from the group consisting of:

- (a) hydrogen,
- (b) -C₁₋₆alkyl, which is unsubstituted or substituted with 1-6 fluoro,
- (c) phenyl, and
- (d) benzyl,

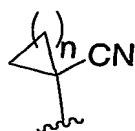
- 5 (4) -CN,
- (5) -C₁₋₆alkyl-CN,
- (6) halogen,
- (7)



10 wherein R^{8a} and R^{8b} are independently selected from the group consisting of:

- (a) hydrogen,
- (b) -CN,
- (c) halo,
- (d) -C₁₋₆alkyl,
- 15 (e) -O-R⁵,
- (f) -S-R⁵,
- (g) -CO₂R⁵, and
- (h) tetrazolyl,

(8)



20 wherein n is 1, 2, 3 or 4;

R³ is selected from the group consisting of:

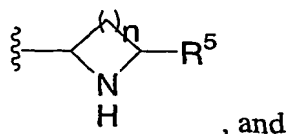
- 25 (1) -CH(OH)-R⁶,
- (2) -C(O)R⁶,
- (3) -CH(R⁶)-NR⁷R⁹, and
- (4) -C(O)-NR⁷R⁹;

R⁶ is independently selected from the group consisting of:

- 30 (1) hydrogen

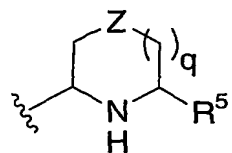
(2) C₁₋₆ alkyl,

(3)

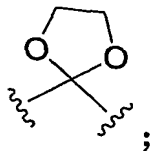


5

(4)



wherein Z is selected from the group consisting of -C(O)-, -CH(OH)-, and



and wherein q is 1 or 2;

10

R⁷ is selected from the group consisting of :

(1) hydrogen,

(2) -C₁₋₆alkyl, -C₂₋₆alkenyl, -C₂₋₆alkynyl, or -C₃₋₈cycloalkyl which is unsubstituted or substituted with 1-7 substituents where the substituents are independently selected from:

15

(a) halo,

(b) hydroxy,

(c) -O-C₁₋₆alkyl,

(d) -C₃₋₆cycloalkyl,

20

(e) phenyl or biphenyl, which is unsubstituted or substituted with 1-5 substituents where the substituents are independently selected from:

(i) -C₁₋₆alkyl,

(ii) -C₃₋₆cycloalkyl,

(iii) -O-C₁₋₆alkyl,

25

(iv) halo,

(v) hydroxy,

- (vi) $-\text{CF}_3$,
(vii) $-\text{OCF}_3$,
(viii) $-\text{NR}^9\text{R}^{10}$, and
(ix) $-\text{CN}$,
5 (f) $-\text{CO}_2\text{R}^9$,
(g) $-\text{NR}^9\text{R}^{10}$,
(h) $-\text{CONR}^9\text{R}^{10}$,
(3) $-\text{CHR}^5-\text{CONR}^9\text{R}^{10}$,
10 (4) phenyl which is unsubstituted or substituted with 1-5 substituents where the
substituents are independently selected from:
(a) $-\text{C}_{1-6}\text{alkyl}$,
(b) $-\text{C}_{1-6}\text{alkyl-phenyl}$,
(c) $-\text{C}_{3-6}\text{cycloalkyl}$,
(d) $-\text{O}-\text{C}_{1-6}\text{alkyl}$,
15 (e) halo,
(f) hydroxy,
(g) $-\text{CF}_3$,
(h) $-\text{OCF}_3$,
(i) $-\text{NR}^9\text{R}^{10}$, and
20 (j) $-\text{CN}$;

m is independently 1, 2, 3 or 4;
and pharmaceutically acceptable salts thereof.

2. The compound of Claim 1 wherein R¹ is selected from the group consisting of:

- (1) hydrogen,
- (2) -C₁₋₆alkyl, which is unsubstituted or substituted with 1-7 substituents where the substituents are independently selected from:
 - (a) halo,
 - (b) hydroxy,
 - (c) -O-C₁₋₆alkyl,
 - (d) -C₃₋₆cycloalkyl,
 - (e) phenyl or biphenyl, which is unsubstituted or substituted with 1-5 substituents where the substituents are independently selected from:
 - (i) -C₁₋₆alkyl,
 - (ii) -C₃₋₆cycloalkyl,
 - (iii) -O-C₁₋₆alkyl,
 - (iv) halo,
 - (v) hydroxy,
 - (vi) -CF₃,
 - (vii) -OCF₃,
 - (viii) -NR⁹R¹⁰, and
 - (ix) -CN,
 - (f) -CO₂R⁹, wherein R⁹ is independently selected from:
 - (i) hydrogen,
 - (ii) -C₁₋₆alkyl, which is unsubstituted or substituted with 1-6 fluoro,
 - (iii) benzyl, and
 - (iv) phenyl,
 - (g) -NR⁹R¹⁰, wherein R¹⁰ is independently selected from:
 - (i) hydrogen,
 - (ii) -C₁₋₆alkyl, which is unsubstituted or substituted with 1-6 fluoro,
 - (iii) benzyl, and
 - (iv) phenyl,
 - (h) -CONR⁹R¹⁰,
- (3) phenyl which is unsubstituted or substituted with 1-5 substituents where the substituents are independently selected from:
 - (a) -C₁₋₆alkyl,

- (b) -C₁₋₆alkyl-phenyl,
(c) -C₃₋₆cycloalkyl,
(d) -O-C₁₋₆alkyl,
(e) halo,
(f) hydroxy,
(g) -CF₃,
(h) -OCF₃,
(i) -NR⁹R¹⁰, and
(j) -CN.

3. The compound of Claim 1 wherein R¹ is selected from the group consisting of:

- (1) hydrogen,
(2) methyl,
(3) isopropyl,
(4) isobutyl, and
(5) phenyl.

4. The compound of Claim 1 wherein R² is:
R⁴-S(O)₂N(R⁵)-,

wherein R⁴ is independently selected from the group consisting of:

- (a) -C₁₋₆alkyl, which is unsubstituted or substituted with 1-6 fluoro,
(b) phenyl, and
(c) benzyl,

and wherein R⁵ is independently selected from the group consisting of:

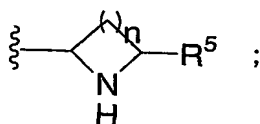
- (a) hydrogen,
(b) -C₁₋₆alkyl, which is unsubstituted or substituted with 1-6 fluoro,
(c) phenyl, and
(d) benzyl.

5. The compound of Claim 1 wherein R² is
CH₃-S(O)₂N(CH₃)-.

6. The compound of Claim 1 wherein R³ is selected from the group consisting of:

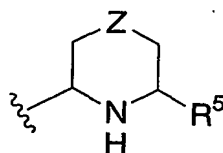
- (1) -CH(OH)-R⁶,
- (2) -C(O)R⁶, and
- (3) -CH(R⁶)-NR⁷R⁹.

7. The compound of Claim 1 wherein R⁶ is:

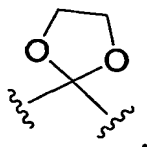


and wherein n is 2 or 3, and R⁵ is hydrogen or methyl.

8. The compound of Claim 1 wherein R⁶ is:



wherein R⁵ is hydrogen or methyl, and Z is selected from the group consisting of -C(O)-, -CH(OH)-, and



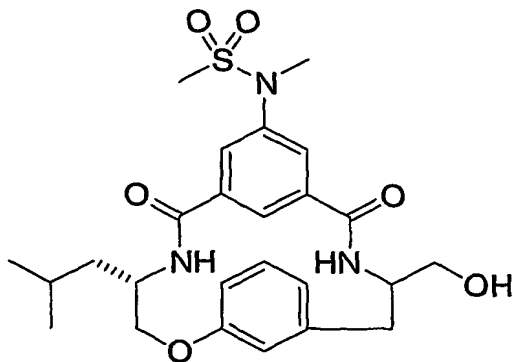
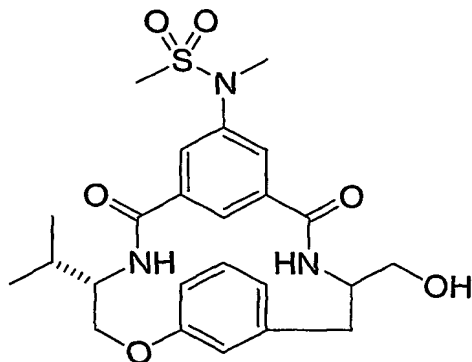
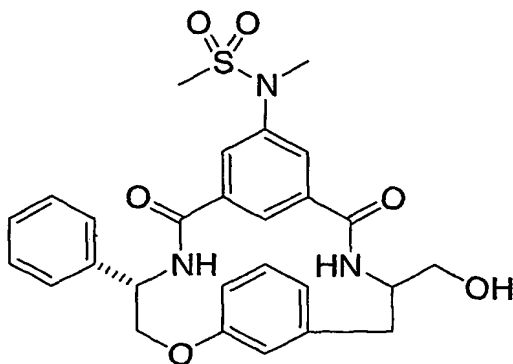
9. The compound of Claim 1 wherein R³ is selected from the group consisting of:

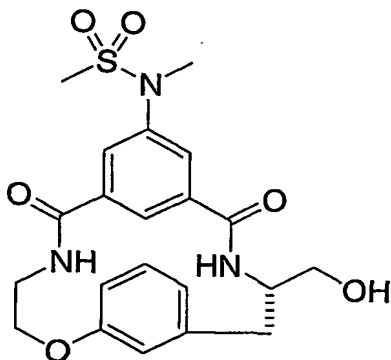
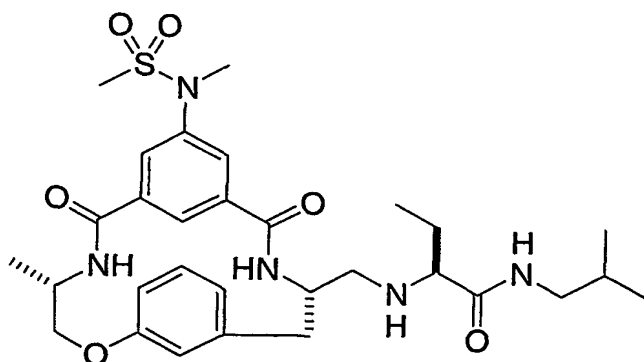
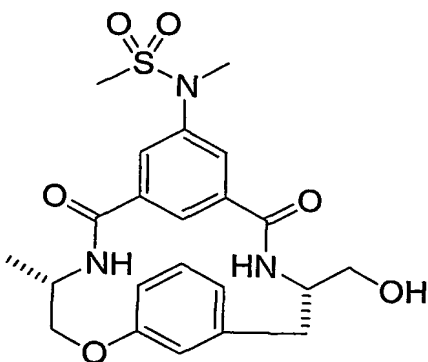
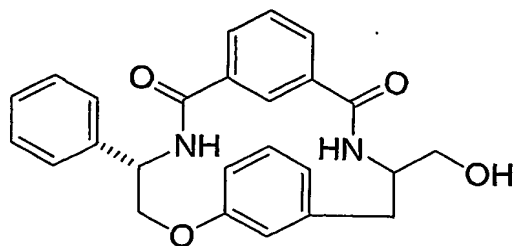
- (1) -CH₂-OH, and
- (2) -CH₂-NH-CH(CH₂CH₃)-CO-NH-CH₂CH(CH₃)₂.

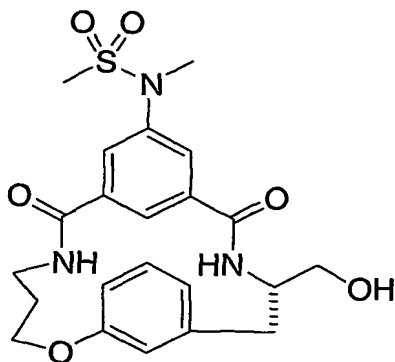
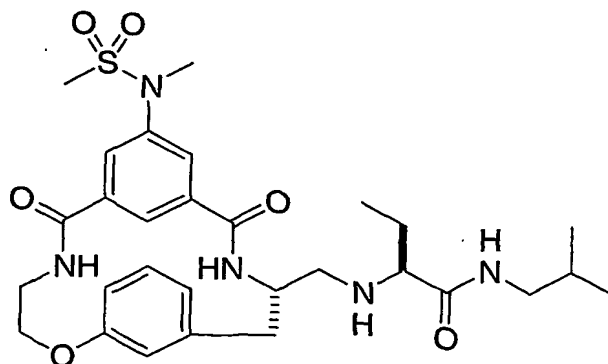
10. The compound of Claim 1 wherein m is 1.

11. The compound of Claim 1 wherein m is 2.

12. A compound which is selected from the group consisting of:







and pharmaceutically acceptable salts thereof.

5 13. A pharmaceutical composition comprising an effective amount of a compound of Claim 1 and a pharmaceutically acceptable carrier.

10 14. A method for inhibition of β -secretase activity in a mammal in need thereof which comprises administering to the mammal a therapeutically effective amount of a compound of Claim 1.

15 15. A method for treating, preventing, controlling, ameliorating or reducing the risk of Alzheimers disease in a patient in need thereof comprising administering to the patient an effective amount of a compound of Claim 1.